

**PROCEDURES TO TURN A Ni-NTA RESIN INTO Zn-NTA RESIN**

**(Adapted from The QIA Expressionist 06/2003 guide)**

1. Take an used or new Ni-NTA resin cartridge to a bench support.
2. Flow the storage solution (20% EtOH).
3. Wash the column with 2 volumes of Regeneration Buffer.
4. Wash the column with 5 volumes of distilled water.
5. Wash the column with 3 volumes of 2% SDS.
6. Wash the column with 1 volume of 25% EtOH.
7. Wash the column with 1 volume of 50% EtOH.
8. Wash the column with 1 volume of 75% EtOH.
9. Wash the column with 5 volumes of 100% EtOH.
10. Wash the column with 1 volume of 75% EtOH.
11. Wash the column with 1 volume of 50% EtOH.
12. Wash the column with 1 volume of 25% EtOH.
13. Wash the column with 1 volume of distilled water.
14. Wash the column with 5 volumes of 100 mM EDTA, pH 8.0.
15. Wash the column with 2 volumes of distilled water.
16. Recharge the column with 2 volumes of 100 mM ZnCl<sub>2</sub> or ZnSO<sub>4</sub>.

17. Wash the column with 2 volumes of distilled water.
18. Wash the column with 2 volumes of Regeneration Buffer.
19. Wash the column with 2 volumes of distilled water.
20. Equilibrate with 5 volumes of a suitable buffer (e.g., Buffer A ).
21. Now it's ready for use or just

### *BUFFERS AND SOLUTIONS RECIPES*

Regeneration Buffer (1 liter):

0.2 M acetic acid - 11.5 mL of Glacial Acetic Acid (17.4M in commercial concentration)

6 M GuHCl - 573 g guanidine hydrochloride

Buffer A (1 liter):

100 mM  $\text{NaH}_2\text{PO}_4$  - 13.8 g  $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$  (MW 137.99 g/mol)

10 mM Tris·Cl - 1.2 g Tris base (MW 121.1 g/mol)

50 mM NaCl – 2.9 g Tris base (MW 58.44 g/mol)

Adjust pH to 8.0 using NaOH.